

**REMARKS**

In accordance with the foregoing, claims 1, 2, 4-8, 10-18 have been amended. No new matter is being presented. Therefore, claims 1-19 are pending and reconsideration is respectively requested.

**AMENDMENTS OF CLAIMS 1, 2, 4-8, and 10-18:**

It is noted that the amendments of claims 1, 2, 4-8, and 10-18 are not being presented in view of the cited reference or the outstanding rejections, but rather, are being presented with an eye toward improving the form of the claim. As such, the amendments are not intended to limit or otherwise narrow the scope of the claims themselves or the application in whole.

**REJECTIONS UNDER 35 U.S.C. §102:**

Claims 1-12 and 15-19 are rejected under 35 U.S.C. §102(b) as being anticipated by Ma et al. (EP Publication 1,085,509 A2). The rejections are traversed.

Regarding the rejection of claim 1, it is noted that, as amended, claim 1 recites a method of detecting a radial tilt of a disc. According to the claim, the method comprises comparing phases of first summed signals obtained from a first plurality of signals that are generated when first light-receiving units of a photo diode receive light from a laser beam that is reflected from a surface of the disc to generate a first phase comparison signal, and comparing phases of second summed signals obtained from a second plurality of signals that are generated when second light-receiving units of the photo diode receive light from the laser beam that is reflected from the surface of the disc to generate an internal phase comparison signal. The radial tilt is then detected based on a phase difference of the second and first phase comparison signals obtained when the laser beam crosses a track on the disc.

Thus, the claimed invention has an advantage, as discussed in the specification at paragraphs [0033] through [0034], in that since the second and first phase comparison signals should have opposite phases when the laser beam crosses the track, any deviation from that phase oppositeness is an indication of a radial tilt. In fact, an  $R_s$  value, which is related to this deviation, see *specification at paragraphs [0033]-[0034]*, is inversely proportional to the radial tilt.

The reference to Ma, on the other hand, discloses a typical error detection apparatus that detects a tilt by receiving light, reflected from a surface of a disc, at light receiving areas of a photodetector and by comparing phases of the detection signals generated by particular areas of the photodetector. However, the reference does not specify any particular moments during error detection that the phase comparison is to be completed. Particularly, the reference is certainly silent as to the specific recitation of a detecting of the radial tilt based on a phase difference of the internal and external phase comparison signals obtained at the particular time when the laser beam crosses a track on the disc, as claimed, so as to achieve the above-noted advantages presented by the claimed invention.

Thus, it is respectfully asserted that claim 1 is patentably distinguished from the reference, and that, therefore, the rejection of claim 1 is overcome.

Regarding the rejections of claim 7 and 15-17, it is noted that these claims recite substantially similar features as claim 1, and that, therefore, the rejections of these claims are overcome for substantially similar reasons as set forth above.

Regarding the rejections of claims 2-6, 8-12, 18, and 19, it is noted that these claims depend from claims 1, 7, and 17, which are allowable as discussed above. Therefore, it is noted that these claims are also allowable for at least the reasons set forth above.

**REJECTIONS UNDER 35 U.S.C. §103:**

Claims 13 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ma et al. (EP 1,085,509) in view of Sano et al. (U.S. Patent Publication 2002/0041542). However, since claims 13 and 14 have amended to recite similar subject matter as claims 1 and 7, and since the reference to Sano does not cure the defects of Ma, as discussed above, applicants respectfully assert that the rejections of claims 13 and 14 are overcome.

**CONCLUSION:**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited. Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

STEIN, MCEWEN & BUI, LLP

Date: 4/10/05

By: 

Howard I. Levy  
Registration No. 55,378

1400 Eye St., NW  
Suite 300  
Washington, D.C. 20005  
Telephone: (202) 216-9505  
Facsimile: (202) 216-9510